



THE RARA RAG

Newsletter of The Rochester Amateur Radio Association, Inc.

Founded in 1931

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THE OFFICIAL OBSERVER PROGRAM

SCOTT THEIS, W2LW, RARA VICE PRESIDENT

Coming up at the first meeting of the year we will learn about how the Amateur Auxiliary, ARRL and FCC monitor activity and protect amateur bands. Paul Jason Kolacki, K2FX, will join us with a presentation on how our bands are monitored.

Paul will discuss the Amateur Radio Operators Code, an agreement between the FCC, ARRL, and Official Observer stations, along with the legal implications of that agreement. He will talk about what the Amateur Radio Auxiliary is about and its partnership with the FCC, breaking down the ARRL Field Organization and Auxiliary Organization as well.



Paul Jason Kolacki's Station, K2FX

The presentation will touch on the qualifications to become an Official Observer Station with Official Observer Cards and Good Operator cards explained. In addition, Paul will touch on the Public Service role that all Hams could be tasked to provide while discussing the ever-growing problem with rule breakers on the bands, both with HF, and through repeater systems. There will be a question and answer session at the end.

Paul grew up in Henrietta, NY, and was first licensed in 1973. He's now been active in the hobby consistently for over 45-years. He works in Engineering at RF Harris Communications, and also as a local on-air radio broadcaster for WRMM, WARM 101.3FM. Since 1975, Paul has been on the air in a number of Radio Broadcast Markets around the country. Paul is a United States Air Force Veteran, Pilot, and Classic Car Owner. He is an avid CW operator, and a Past President of the Rochester DX Association (RDXA). K2FX is the Western New York ARRL Official Observer Coordinator (OOC), and an accredited VE with the ARRL and W5YI Groups.

Please join us on Wednesday, January 2nd, 2019, 7:00PM at the Boy Scouts Headquarters at 2320 Brighton Henrietta Townline Road, Rochester, New York 14623.

K2JD

N2EH

W2EOC

RARA



BOARDZ BUZZ

BRIAN O'CONNOR, KA2CGB, RARA TREASURER

I write this between Thanksgiving and Christmas. In preparing this column, I reflected back on the board of directors meeting of December 6, during which I was personally impressed with the effective leadership of this year's board.

Following are several points which highlight recent and upcoming club activities. Some of these points are also discussed elsewhere in this issue of the RAG.

Auction Results

A total of 64 items were sold at the auction on November 7.

In summary:

- \$1917 in sales of member items
- \$ 163 in sales of donated items
- \$ 192 in commission on sales of member items
- \$ 355 total income to RARA

soapbox/ The fun part of an auction is the bidding. However, many items on offer this year had reserve prices that failed to garner even a single bid. I believe that these items were simply priced too high for a club auction. National pricing, as seen on eBay, simply doesn't work at a local club auction. If you want big prices then first try selling on eBay, with all the hassle (and cost) of packing and shipping. If you can't get your price there, then put a realistic lower price on the item for the RARA auction. /soapbox

New Donations

W2IS donated an AEA ET-1 antenna tuner to the club just before the auction. This tuner will be used with the club's TenTec Omni-V transceiver, which was donated earlier this year.

This weekend, another area ham who is downsizing donated a little-used MFJ mag-loop transmit antenna and two like-new HTs.

Watch for the TenTec, tuner and loop antenna to be in service at Winterfest!

Club Station

The club's N2EH license renewal is in process. Therefore, it's a good time to thank Jim DiTucci, N2IXD, for his continuing service as club station trustee.

The board is going to stand up a subcommittee to establish the minimum requirements for the prospective club station. We will need a couple of members to serve on this subcommittee.

A subsequent feasibility study will determine how to fund the club station on an ongoing basis.

Membership Cards

Don Kiser, AC2EV, was recently able to obtain a professional dye-sublimation ID card printer for club use. Don is currently testing affordable software to run

the printer. After that's settled, membership secretary Tim Barrett, K9VB, with support from others, will be getting ready for deployment and production.

So, if you are one of many newer members who don't have a RARA membership card then please rest assured that your card will be coming ... stay tuned!

Education

I continue to be excited by the topics being covered by the RARA Academy. Every month there's something new. I'm especially interested in learning about the Raspberry Pi on Saturday, January 19.

A new feature is the Elmer's Corner starting at 6:15PM before the monthly meeting. Come get your questions answered!

Hamfest

Yes, we have a firm agreement with Hilton Exempt to hold our hamfest on Saturday, June 1. We now need a few members to help with planning and preparation. If you're interested in being on the committee please e-mail president@rochesterham.org.

Winterfest

The Winterfest is our next club outing and operating event. The club's FT-450 and Omni-V rigs will be there. Special consideration will be made to get new operators on HF; no experience necessary. See you at the heated Stewart Lodge in Mendon Ponds Park on February 9.

In closing, my hope is that all members are aware that the board of directors is working to bring the club into 2019.

Wishing you a Merry Christmas and Happy New Year.

CALENDAR OF EVENTS

WEDNESDAY JANUARY 2, 2019 - RARA General Meeting

7:00 PM at BSA Headquarters

2320 Brighton Henrietta Town Line Rd

Thursday January 3, 2019 - RARA Board of Directors

5:45 PM at Novaworks, 333 Metro Park, F-500

Saturday January 19, 2019 - RARA VE Testing

9:45 AM RIT Kate Gleason College of Engineering, Room 9-3139

SATURDAY FEBRUARY 9, 2019 - WINTERFEST

Stewart Lodge—Mendon Ponds Park

SATURDAY JUNE 1, 2019 - ROCHESTER HAMFEST 2019

EDUCATION

Tim Brown, WB2PAY, Education Coordinator

A NEW Q&A PROGRAM THE ELMERS CORNER

At the December pre-meeting Q & A session, **Karl Heinz Kremer, K5KHK** and **Forest Shick, WA2MZG**, met with several members and fielded questions on the following topics:

- "What are the Grounding Considerations for a Ham Station?"
- "Who can help me with my SoftRock RXTX Ensemble Transceiver?"

The Jan. 2nd Q & A session will be hosted by **Larry Hill, N2AJX**.

Let **RARA ELMERS** help you.
Q & A sessions begin at 6:15pm prior to the RARA meeting.

You may submit your questions ahead of time by emailing education@rochesterham.org

These experienced ELMERS will help you with your questions. If the ELMERS do not have the answer to your question, they will get back to you with the information or put you in contact with a knowledgeable ELMER.

ANOTHER NEW PROGRAM THE RXCW GROUP

dah di dah dit di dah dah

RARA and XARC are sponsoring this Morse Code learning experience.

- The first meeting of **RXCW GROUP** was held on Thursday, Nov 29th at 7:30pm at the Webster Recreation Center, 1350 Chiyoda Drive (north of Rt. 104 off Phillips Rd.)
- 17 "students" and 6 CW ELMERS attended.
- Students were divided into 3 groups. Two beginners groups and one intermediate group.

RXCW GROUP is an open and ongoing course of instruction.
Join the group anytime by contacting **Forest Shick, WA2MZG**
email: fshick3@gmail.com



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RASPBERRY PI — JAN. 19, 2019



The January session will cover:
Raspberry Pi

- What is it?
 - Computer
 - Development system
 - Micro controller
- LINUX, what is it?
- Overview of Setup
- Pi in the Ham Shack

Karl Heinz Kremer, K5KHK, is the lead for this session.

Latest Academy information is available at https://www.rochesterham.org/rara_academy.htm

Academy Workshops are held at the BSA Headquarters, 2320 Brighton Henrietta Town Line Rd, 10am to noon. You can sign up for Academy Workshops by emailing education@rochesterham.org.

If you would like to assist or even create a session, please contact the education coordinator by emailing education@rochesterham.org.

2019 SPRING LICENSE CLASSES

If you are looking to learn new skills, upgrade your license, make new friends, and have some fun, sign up for the Spring session of RARA's license classes.



HYBRID KENWOOD STATION



Click This

Lincon Web

CLUBS

- [GQRP Club](#)
- [Central Florida QRP Group](#)
- [Lake Wales Radio Amateurs](#)
- [QRP Club of New England](#)

SATELLITES

- [Amateur Radio Satellites](#)
- [How Do I Start](#)
- [Amateur Satellite Primer](#)

CW

- [NA QRP CW Club](#)
- [AA9PW](#)
- [The Ham Whisperer](#)
- [W1AW Operating Schedule](#)
- [Code Practice Archives](#)

Amateur Technician, General and Extra Licensing classes will commence at 7pm on Tuesday February 26, 2019.

Classes run for 10 weeks with FREE testing on the 11th week. Classes will be held at RIT in the GLEASON building, rooms TBD. Licensing courses are FREE to current members and only \$15.00 for non-members.

Not a current RARA member? Membership starts at FREE! <https://www.rochesterham.org/membership.htm>

ARRL Licensing manuals may be purchased the first night of class for the discounted rate of \$25.00. Please make checks payable to RARA, or have exact amount.

In order to have sufficient License Manuals and to keep you updated on any schedule changes, please pre-register at education@rochesterham.org

* * * * *

Please take advantage of these RARA sponsored training and operating opportunities.

If you have a topic that you think will interest the membership, drop an email to education@rochesterham.org.

ACTIVITIES IN SUPPORT OF SCOUTING

Mike Moore, KC2NM

The RARA Radio Merit Badge team conducted a Radio Merit Badge session for BSA Troop 327 in Chili. Troop 327 was formed 44 years ago to accommodate adult Scouts on the west side with special needs. It currently has 15 members ages 23 to 59. It was very gratifying to see a group with such enthusiasm for the scouting program. There were several Eagle Scouts and many with a large number of Eagle Palm awards. Steve, K2SRF organized the event with help from Mike KC2NM and Mark KC2UES. The operating badge requirement was conducted on 2 Meters using a temporary station set up at the meeting site. Wesley N2WES worked each of the scouts in succession. This added some scout to scout excitement because Wesley knew all the scouts from being a counselor at Babcock Hovey last summer.

In January, RARA will provide Amateur Radio demonstrations for two District Scouting Klondike Derbys. The Klondike Derby's are overnight campouts featuring sledding activities and games. We will set up a low band station in the Hopkins Point Lodge in Mendon Ponds Park. These sessions will be held Saturday, Jan. 19 and Jan. 26, 9 AM - 3 PM. The purpose of the demonstration will be to expose the scouts to the hobby and develop an interest in getting a ham radio

license or earning the Radio Merit Badge. Experienced and new hams are needed to conduct this demonstration. If you are a new ham, please consider joining us for the demonstrations, both to provide and receive some "Elmering" on the operation of a station. For more information or to volunteer to participate see the [Scouting](#) tab at rochesterham.org. Questions may be directed to Mark Pedersen, KC2UES mpeder21@gmail.com.

CLUB STATION REQUIREMENTS COMMITTEE

SCOTT THEIS, W2LW, RARA VICE PRESIDENT

We will be holding our first meeting at 6:00PM on January 9th at 333 Metro Park, Suite F-500, Brighton (Novaworks, LLC, Suite F-500 'B' Area). The purpose of this meeting is to discuss overarching committee goals for the eventual creation of the Station Requirements document which will be submitted to the RARA Board of Directors. In addition, we will be establishing a regular meeting place, date and time.

If you would like to participate, please contact me at vicepresident@rochesterham.org by January 4th. Thanks!

JANUARY RAFFLE

January Raffle prizes are pictured below:

- RSGB Radio Communications Handbook
- Even More Wire Antenna Classics Vol 3
- MFJ-1710S 2M Telescopic Antenna w/SMA

Coming in February
RIGrunner 4005



PUBLIC SERVICE UPDATE

Mike Moore, KC2NM, Public Service Coordinator

This year our December Public Service event was held jointly with RDXA on Saturday, December 8. Our session was named "Sounds like Stem" and it followed the same format as The Holiday Science and Technology Days held in years past at RMSC on the weekdays between Christmas and New Years. We conducted demonstrations on electricity, motors, and magnets. There were a Morse machine and straight key with a demonstration of Morse code. There was a Raspberry Pi computer which was running a kids coding development package called Scratch. Amateur radio demonstrations included a working FT-8 station and fox hunting rig.



Participating in the event were N2JAC, WA2FTV, KC2NM, W2SKY, AC2EV, WB2GFZ, NV2K, K2MTH. Thanks to Don Kiser AC2EV who served as captain of the event. We are planning our Upcoming Public Service Events for 2019 and they are listed below.

Tour de Cure	Xerox Campus Webster	Saturday	June 8, 2019
Bike MS: ROC the Ride	Genesee Valley Park - Rochester, NY	Saturday	August 24, 2019
Fairport Lift Bridge Regatta	Erie Canal – Fairport, NY	Sunday	Sept. 28, 2019
Pumpkin Patrol	Overpasses of the New York State Thruway	Wednesday & Thursday	Oct. 30-31, 2019
Holiday Science & Technology Day	Rochester Museum & Science Center	Saturday	TBD

ANTIQUE WIRELESS MUSEUM HELPS THEIR FELLOW STAFF MEMBER

Robert Hobday, Director, AWA

Antique Wireless Museum Staff Member Bill Jaker WB8RAE, recently had to move into an assisted living facility in New Jersey due to health issues. This is a double blow for an active ham radio operator like Bill. The move from independent living in your own home to assisted living is difficult enough, but to lose your ability to continue as an active ham radio operator is crushing. Bill was a regular each day on many radio nets and talking with friends across the country and the world.



Bill Jaker WB8RAE

But help was on the way with the support of Bill's sister Bette Barr. Once Bill was settled in his new living center, Curator Lynn Bisha W2BSN, Curator Emeritus Bruce Roloson W2BDR, Ned Asam W2NED, and Dan Waterstraat W2DEW developed a new ham radio station at the AWA offices in Bloomfield NY using Bill's Elecraft K3 ham gear and a new antenna. Using new Elecraft K3 RemoteRig boxes, the internet service available in Bill's new room, and enlisting the help of AWA member Bill Zukowski N2YEG of New Jersey for the final installation, Bill Jaker was back on the ham bands. He is thrilled and could not be happier.

AWA wants to thank Bill's AWA friends and fellow staff members for their thoughtfulness and their dedication to getting Bill back on the air. If you happen to contact Bill WB8RAE on the air, say hello and tell him you read his story. He is a great guy and extremely knowledgeable about broadcast radio and television. Hopefully this will set a model for helping other ham operators who have to enter assisted living centers.



AWA Curator Lynn Bisha W2BSN demonstrating the remote

ROCHESTER MAKER FAIRE

Jon Dickason, N2JAC

XARC was at the Rochester Maker Faire again this year with code keys for kids to build. The middle school age kids enjoy discovering Morse code, and building and decorating their key. Maker Faire is called the Greatest Show (& Tell) on Earth - a family-friendly showcase of invention, creativity, and resourcefulness. There were electronics, robots, arts and crafts, and fire spewing musical horns and whistles. N2JAC and AG2Y supervised building of our club designed key, while K2RAH helped KA1CNF supervised building of the new Rochester Makerspace key made with laser cut plywood.

HAMFEST 2019 UPDATE

TIM GUYOT, KB1POP, RARA HAMFEST COORDINATOR

ONE MORE TIME!

Good News! The 2019 Hamfest is a go for Saturday June 1st 2019 at the Hilton Exempt Club 137 South Ave, Hilton, NY 14468.

We're waaay ahead of last year. I met with the Hilton Exempt Club and signed the contract. It's time to start advertising and planning. We're waaay ahead of last year.

Thanks to Anand Choudri KC2KPG, we have an easy to follow procedure that includes all the steps to put on a great hamfest, and now that the contract is signed, the hardest part – finding a venue – will be out of the way.

WHAT WE NEED NOW IS A COMMITTEE OF 2-4 PEOPLE WITH A DESIGNATED A CHAIRPERSON TO PRODUCE THE EVENT.

I've been on the committee for the last two years and would be happy to advise, but we need others to step up to the challenge of leading the event. There are several steps to be taken between now and June 1st. To be on the committee, you mostly need to be able to respond to e-mail and make a few phone calls.

If you're interested in being on the committee or being the chair, please e-mail president@rochesterham.org

NOTES FROM THE WORK BENCH: 3D PRINTED POWERPOLE DISTRIBUTION BLOCK

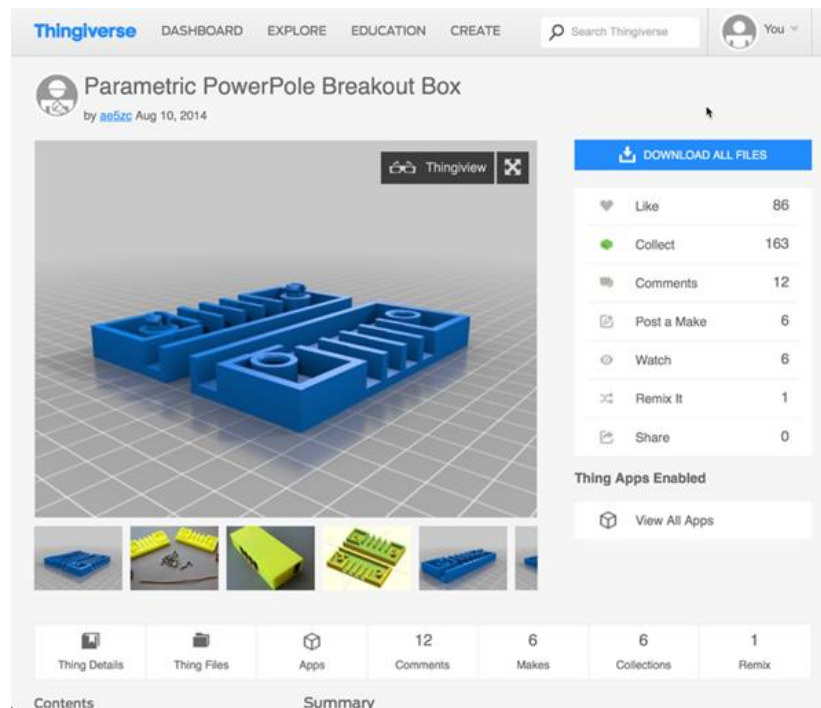
Karl Heinz Kremer, K5KHK

Last month I wrote about 3D printing in general. This month, I'd like to demonstrate how a 3D printer can produce something that can be used in the shack.

Anderson PowerPoles are a good way to connect radios and other devices to a power supply, without the risk of reversing polarity. To connect multiple devices to the same power supply requires a power distribution block. These are not cheap. A simple 4-way distribution block is about \$24. That's about \$4 for the four pairs of connectors and \$20 for the plastic around them. There must be a cheaper way to do that...

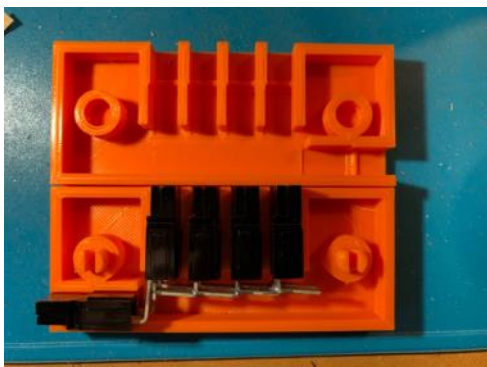
The 3D printer to the rescue!

If you can think of a 3D printed gadget, chances are pretty good that somebody else has already designed that gadget, and if we are lucky, has uploaded the 3D model to the internet. One of the best resources for such 3D model files is the site Thingiverse (<http://thingiverse.com>). Searching for "PowerPoles" does indeed turn up a number of different projects that are promising.



I picked the “Parametric PowerPole Breakout Box” (<https://www.thingiverse.com/thing:423657>) – parametric in this scenario means that the user can actually customize the design for specific needs. In this case, the number of connectors can be changed. To do that, the design file can be loaded in the latest version of OpenSCAD, which allows for simple modifications of the parameters that the designer exposed. There used to be a way to customize these designs right in Thingiverse, but this function has been broken for a while.

The version I selected is the one with one input and four outputs.



The distribution block prints in two pieces, which will eventually snap together. I did not try to assemble them before the PowerPole connectors were installed, I was worried that I would not get them apart again without destroying the case.

To connect the PowerPoles, I used the contacts made for printed circuit board mounting, which perfectly fit into the case in a way that allowed me to solder one contact to its neighbor. Once both the red and black connectors were soldered and assembled following the “red-right-roof” rule taught by Tim Brown during a recent RARA Academy session, I finally allowed myself to snap the two halves of the case together. They feel like they will never come apart again.



Thanks to my 3D printer, I have a very affordable PowerPole distribution block, and if I ever need more connections, I will just print up a bigger version of this design.

There is an “Amateur Radio” radio group on Thingiverse (<https://www.thingiverse.com/groups/amateur-radio/things>) that has a number of interesting designs. If you are interested in 3D printing, check it out, and then find out if your local library has a 3D printer that you can print designs on.

RXCWG

Forest Shick, WA2MZG

As has been announced a few times, RARA and XARC are sponsoring a CW Group to teach Morse Code, to help improve code speed, to teach proper etiquette when operating CW and encourage rag chewing, contesting, DXing and other CW activities.

Up till now we have referred to the group as the CW Group. To honor the support of RARA and XARC in forming the group and future progress, the name was changed to RXCWG.

What has happened so far?

At last count there are 7 Elmers, 13 beginner and 6 intermediate members. It is never too late to join. If you want to learn Morse Code, if you want to operate CW and need a little push, if you are looking for a new amateur radio activity—this is the group for you.

Beginners are members with little to no Morse code skills—less than 5 WPM. There are 2 beginner groups, West and Southside. They have been meeting regularly at a member’s house for training: memorizing different letter groups, listening to live CW on the radio, practicing with keys and paddles.

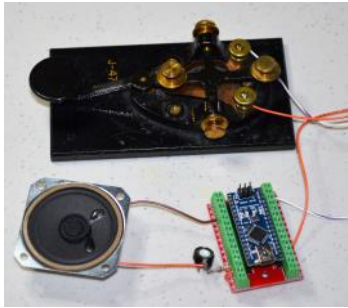
The intermediate group is initially studying canned CW practice files with a goal of reaching a common proficiency and then begin on the air practice.

The goal of RXCWG is to be more than a one time teaching session. We are planning for longevity—members will join, stay, learn, improve their skills and then Elmer a new member. We are planning monthly whole group meetings to cover large topics such as etiquette or contesting.

Stay tuned for our next exciting adventure—maybe ARRL Straight Key Night!

A CODE PRACTICE OSCILLATOR

Forest Shick, WA2MZG



In the past year or so we have had presentations and RARA Academies on microcontrollers, the Arduino and the Raspberry Pi. In January we will have a Raspberry Pi based RaRa Academy.

RARA and XARC have just formed the RXCWG – a group for encouraging CW operation. How about a simple ham radio project using the Arduino to help you learn Morse Code?

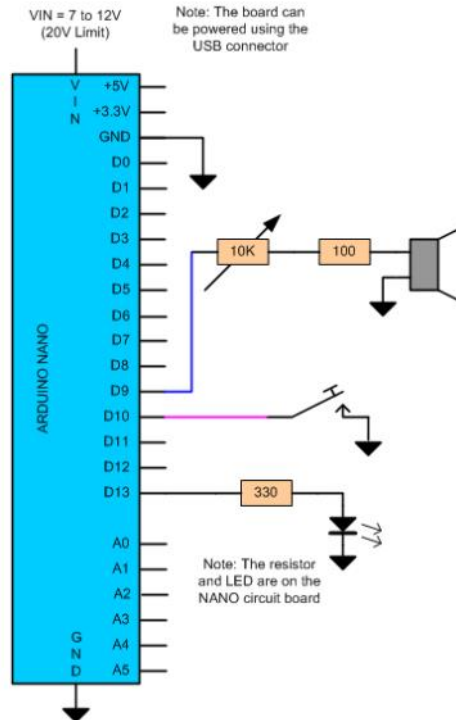
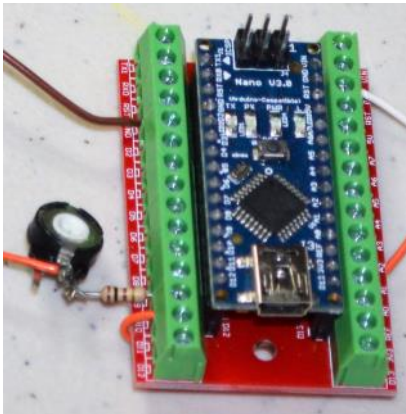
Here is a simple Code Practice Oscillator made with an Arduino NANO microcontroller board and a few other components. Yes, Yes, I know it is over kill – it can be done with a 555 time. But what fun is that.

The circuit is simple. The C code is simple. A good first project – slightly better than making an LED blink!

Here is the simple schematic and parts list:

Parts List

- Arduino NANO
- 100 ohm, 1/4W resistor
- 10K ohm potentiometer
- Small speaker
- Hookup wire
- Straight key
- Nano Screw Terminal Shield from [Your Duino](#) (optional)
- USB cable
- USB wall charger (optional)



Close up of the NANO, resistor, potentiometer and the screw terminal shield.

NOTE There must be a resistor in series with the speaker to protect the Arduino and the speaker.

To begin this project you will need to visit the [Arduino](#) web site. They have excellent instruction for setting up your computer for writing your first program. Go to the RESOURCES menu item and select [GETTING STARTED](#). There is also a [TUTORIALS](#) menu item.

You have a schematic and parts list to build the hardware and help from Arduino to setup your computer. Let's take a look at the simple software for making a code practice oscillator from an Arduino NANO.

```
/*  
  CPO_Simple  
*/  
  
// Pin use definitions  
#define LED 13 // The LED is already on the NANO and connected to pin 13  
#define KeyIn 10 // This is the Straight Key input  
// Tone is generated on pin 9 and connected to the speaker  
  
void setup() // Initialize the pins  
{  
  // Set up CW pins  
  pinMode(KeyIn, INPUT_PULLUP); // Make pin 10 an input with a pullup resistor  
  pinMode(LED, OUTPUT); // Make pin 13 an output  
  digitalWrite(LED, LOW); // Set pin 13 LOW or 0 volts  
}  
  
void loop() // This is the main part of the program  
{  
  // Read Straight Key and Set or Clear the LED  
  if(digitalRead(KeyIn) == LOW) // if the key is pressed  
  {  
    digitalWrite(LED, HIGH); // turn the LED on  
    tone(9,750); // put a 750HZ tone on pin 9 to the speaker  
  }  
  else // if the key is not pressed  
  {  
    digitalWrite(LED, LOW); // turn off the LED  
    noTone(9); // turn off the tone  
  }  
}
```

Pretty simple program. First you define 2 names: **LED** and **KeyIn**. Then you set-up the 2 pins for input or output: **pinMode**. Next you read the statues of a pin with **digitalRead** and you write to a pin with **digitalWrite**. Finally **tone** and **noTone** turn the oscillator on and off.

What's next? A CPO for paddles? A random Morse character generator?

THE 8 MAGNETEERS

Mike Moore, KC2NM

In May of 2018 RARA awarded its Technology Grant to St. Louis School, Pittsford, FIRST Lego Robotics Program. In their application St. Louis School requested \$2000 to purchase four Lego EV3 Lego Robotics kits at a cost of \$500 each. The grant application stated their goal to teach twenty 4th and 5th grade students the use of visual sensors, touch sensors, and motor controls to perform useful tasks through the use of the programmable Lego robots. The new robot kits enabled St. Louis School to field two teams with the intention of competing in the First Lego League Championship. The two St. Louis teams were named "The Space Chickens" and "The 8 Magneteers".

The St. Louis teams competed in the FIRST LEGO League where teams of up to 10 members in grades 4-8 research a real-world problem such as food safety, recycling, energy, etc., and are challenged to develop a solution. They also must design, build, and program a robot using LEGO MIND-STORMS®, then compete on a table-top playing field.

This years challenge theme is "Into Orbit" where the teams explore, challenge, and innovate in the vast expanse of space.

The RARA Technology Grant requirements state that the recipient provide RARA with updates. St. Louis School has provided progress updates and Tim, WB2PAY and Mike, KC2NM attended a presentation for the school on Nov. 15 and received invitations to the local competitions. The presentation included a skit provided by each of the two teams with a movie which showed the robots performing parts of the board challenge.

The first level competition was held at McQuaid High School on Nov. 17. "The 8 Magneteers" team won at that level and moved on to the regional competition. The regional competition was held Sunday Dec 9th. at the Goergen Field House at the University of Rochester. "The 8 Magneteers" won the Finger Lakes Global Innovation Award and may be chosen to present at the National Competition.



THANK YOU

NOTE: The following is part of an email received by Mike Moore from St Louis School Education Technology Coordinator.

FIRST Lego League Teams, Space Chickens & 8 Magneteers, did so well this year! We are so proud of both our teams! Thanks to a generous RARA (Rochester Amateur Radio Association) grant they competed with the newest robot technology! See our trophies below.

8 Magneteers' Magnetic Dodge Ball solution has been recommended for a patent. They have also been nominated to possibly present their Magnetic Dodgeball in San Jose in June at the National Competition! Stay tuned.



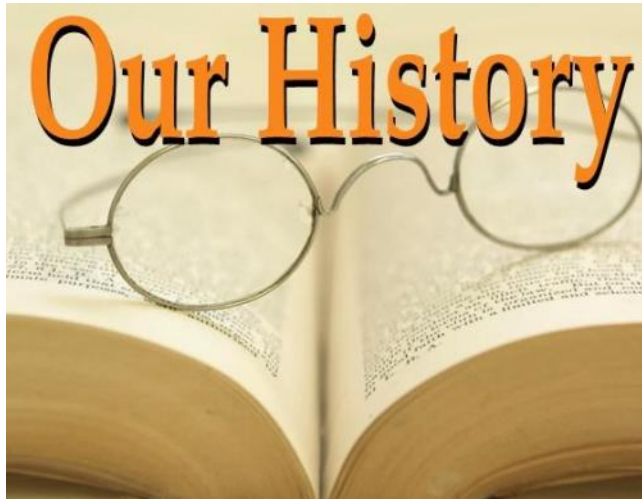
RAGS OF THE PAST

ED GABLE, K2MP, RARA HISTORIAN



40 Years Ago, January 1979

RARA VP and Program Chairman Alan Komenski AC2K, announced the program to be on traffic handling and given by Don Partis (sk) WA2AIV. Don, who was the Director of the Western District Net, an Assistant Director for the ARRL Atlantic Division and Emergency Coordinator for three WNY counties, was from Batavia. Active VHF'er Mike McHugh W2AV, wrote on the upcoming VHF Sweepstakes contest and urges all to participate. "Beat the Packrats" is the battle cry as last year the Rochester VHF Group came within 92% of their rival's top score. Membership Chairman Bob Erskine W2NVZ, reported that last year's RARA membership stood at 734, while today we're under that by just a little. Our new Club Station K2JD, as reported by Ed Holdsworth N2EH, is progressing well with the current push to build operating benches for the new Westfall Road site. Howie, WA2UEB, announced plans for the RARA Valentine Dinner Dance to be held at the Airport Holiday Inn. Reported here was a new 220 MHz repeater, WR2ARL, with Mike Rink WB2HYP as Trustee. The 928 foot antenna elevation in Farmington promises good coverage. Unusual for the Rochester VHF Group was almost a full page article on their latest activities as penned by Bill Thiel K2KGE. Bill reported that recently the Group'ers had a well known EME expert, Al Katz K2UYH, speak locally. From the Want Ads you could buy a HyGain 2 meter FM radio from John Golden W2IRG. Continuing their full page advertising war was Amateur Radio of Rochester, 1185 Scottsville Road, and JR's, of 3327 Lake Avenue, city.



20 Years Ago, January 1999

RARA Program Chairman Bob Moore N2USB, was page one when reporting that the 1999 kick off meeting would be on digital photography. Well recognized experts for the evening were Richard Wilkowski WB2TEQ (sk) and Keith Freeberg N2BEL (sk). Resolution and picture quality, camera operation, photo storage and photo manipulation were covered topics. Meetings at this time were at 111 Westfall Road, city. Another program topic and invitation to attend was penned by Jack Tripp N2SNL, who told of the Rochester Area Packet Society (RAPS) and their meeting where various Packet software packages will be demonstrated. RARA President Rick Wells W2RW, opportunistically took this time to review the first half of his presidency with a look back at 1998. Rick cited RARA's Field Day effort, the success of the Licensing classes, the excellent monthly meeting programs and of course the very successful three day 1998, Rochester Hamfest sponsored by RARA, as highlights of the year to date. Two handsome young(er) men; Ed Gable K2MP and Scott Hoag K2ZS, shared a photo that celebrated the Rochester DX Association and their 50th anniversary. Ed, who was the Assistant Director of the ARRL Atlantic Division, is shown handing the ARRL award to Scott, the RDXA President. Although just barely into January, Lloyd Caves WB2EFU (N2PU), has started his now familiar five part monthly series describing the highlights of the 1999 Rochester Hamfest and ARRL Atlantic Division Convention, scheduled for June 4, 5 and 6, at the Dome Arena. In response to Dave Selbert's, KA2BOK, article on meeting and befriending Mit, SP9EML, in the last issue, Allan Pellnat KX2H, wrote a heartwarming article on his similar experience where he, too, met and befriended a Polish ham who was from his father's home town of Elblag, Poland. Not normally a photo hog, but the only two photos in this issue included Ed K2MP. The second photo shared Ed with Bob Raide W2ZM. Ed and Bob were shown operating an exact replica of the famous 1923 Trans-Atlantic transmitter, used 75 years ago, to achieve the first amateur radio two-way QSO by 1MO/F8AB. The transmitter had four 203A tubes as a self excited Hartley circuit with raw AC on the plates. It had a "note" worthy signal we were told. With regret it was reported that Julio Ahumada LU7BD, Houghton Stevens WA2EIJ, Bob Winhaber K2HYO and Cornelius Unruh KS2I were reported as Silent Keys. From the Want Ads you could buy a 432 MHz KW Linear Amplifier from Fred Becker W2GV. Livingston Travel Agency, Avon, NY, was a new commercial advertiser.

VE TEAM

The next **ALWAYS FREE** testing session:
 Saturday January 19th (Third Saturday)
 Rochester Institute of Technology
 Kate Gleason College of Engineering
 Gleason School of Engineering
 Room 3139, Bldg. 9
 Use "J" parking lot

Registration at 9:45AM
 Testing at 10:00AM

You do not have to preregister.

To avoid giving your SSN go to:
<http://wireless.fcc.gov/uls/index.htm?job=home>
 Register and bring the resultant FRN.

For more info:
<https://www.laurelvec.com/?team=RARA>

Don Kiser - AC2EV
 RARA Board member
 VE Team Leader
 585-613-1035

Jonathan Baumler	KD2RCB	T	Frank Armstrong	KA2WLT	G
Seth Weith-Glushko	KD2QPI	G	John Kotler III	KD2OJZ	E
Joshua Nagy	KD2RCC	T	Heather Decker	KD2RCD	T
Richard Decker	KD2RCA	T	Scott Johnson	KD2RCE	G

New licensees names are in BOLD

CW ELMERS

Name	Call	Area	Email
Ned Asam	W2NED	Pittsford	w2ned@frontiednet.net
Tim Brown	WB2PAY	Ogden	tjbrown@rochester.rr.com
Pete Fournia	W2SKY	Penfield	pfournia@gmail.com
Bill Hopkins	AA2YV	Brighton	whopkin4@naz.edu
Bob Karz	K2OID	Webster	rkarz@rochester.rr.com
Larry Lavery	WW2J	Fairport	ww2j@arrl.net
Joe Rowe	AG2Y	Webster	ag2y@rochester.rr.com

RADIO ELMERS

Name	Call	Area	Email
Tim Brown	WB2PAY	Ogden	tjbrown@rochester.rr.com
Dave Carlson	N2OA	Batavia	kdcarlso@gmail.com
Lawrence Hill	N2AJX	Henrietta	lawrence.hill@rit.edu
Bill Kasperkoski	WB2SXY	Pittsford	wb2sxy@arrl.net
Don Kiser	AC2EV	N Greece	dkiser100@gmail.com
Karl Heinz Kremer	K5KHK	Chili	k5khk@khk.net
Tim Magee	WB2KAO	Greece	585-704-5747
Peter Schuch	WB2UAQ	Perinton	pschuch@rochester.rr.com
Forest Shick	WA2MZG	Webster	fshick3@gmail.com
Dave Timmons	W2DST	N Greece	dstimmons@gmail.com
Dan Waterstraat	W2DEW	Henrietta	higreen@rochester.rr.com

RaRa CALENDAR

Tim Barrett, K9VB

	January 2019					
	Mon	Tue	Wed	Thu	Fri	Sat
		1 SARTG New Year RTTY Contest AGCW Happy New Year Contest AGCW VHF/UHF Contest QRP ARCI New Years Sprint QRP Fox Hunt Phone Fray	2 RaRa Monthly Mtg 7:00pm, BSA HQ, Brighton Henrietta TLR ROC City Net 8:00pm 3.826 MHz UKEICC 80m Contest CWops Mini-CWT Test SKCC Straight Key Event (All month)	3 RaRa BoD Meeting 5:45pm Nova-works 333 Metro Park Rochester 14623 ARES Net 146.61 MHz 7pm AWA Linc Cundall CW Contest NRAU 10m Activity Contest SKCC Sprint Europe	4 PODXS 070 Club PSKFest	5 AWA Museum Open 1pm - 5pm AWA Linc Cundall CW Contest WW PMC Contest RSGB AFS Contest, CW ARRL RTTY Roundup ARRL Kids Day EUCW 160m Contest
6 AWA Linc Cundall CW Contest WW PMC Contest ARRL RTTY Roundup ARRL Kids Day EUCW 160m Contest	7 IQRQ Quarterly Marathon ARS Spartan Sprint	8 IQRQ Quarterly Marathon QRP Fox Hunt Phone Fray	9 IQRQ Quarterly Marathon ROC City Net 8:00pm 3.826 MHz SIARC 7.30pm CWops Mini-CWT Test	10 IQRQ Quarterly Marathon ARES Net 146.61 MHz 7pm NCCC RTTY Sprint QRP Fox Hunt NCCC Sprint	11 IQRQ Quarterly Marathon	12 AWA Museum Open 1pm - 5pm IQRQ Quarterly Marathon YB DX Contest Old new year Contest UBA PSK63 Contest SKCC Sprintathon North American QSO Party, CW
13 IQRQ Quarterly Marathon UBA PSK63 Contest SKCC Sprintathon North American QSO Party, CW NRAU-Baltic Contest, SSB, CW DARC 10M Contest RSGB AFS Contest Classic Exchange, CW 4 States QRP Group Sprint	14	15 RDXA 7.30pm Monroe Cty EOC QRP Fox Hunt Phone Fray	16 ROC City Net 8:00pm 3.826 MHz CWops Mini-CWT Test NAQCC CW Sprint	17 ARES Net 146.61 MHz 7pm NCCC RTTY Sprint QRP Fox Hunt NCCC Sprint	18 LZ Open Contest	19 AWA Museum Open 1pm - 5pm Hungarian DX Contest RSGB AFS Contest, Data North American QSO Party, SSB WAB 1.8 MHz Phone ARRL January VHF Contest Feld Hell Sprint
20 Hungarian DX Contest RSGB AFS Contest, Data North American QSO Party, SSB WAB 1.8 MHz Phone ARRL January VHF Contest Feld Hell Sprint Run for the Bacon QRP Contest	21	22 NAQCC CW Sprint QRP Fox Hunt Phone Fray	23 ROC City Net 8:00pm 3.826 MHz CWops Mini-CWT Test	24 Monroe Cty ARES 6pm, Red Cross Center, Prince St NCCC RTTY Sprint QRP Fox Hunt NCCC Sprint	25	26 AWA Museum Open 1pm - 5pm CQ 160-Meter Contest, CW REF Contest, CW BARTG RTTY Sprint UBA DX Contest, SSB Winter Field Day
27 CQ 160-Meter Contest, CW REF Contest, CW BARTG RTTY Sprint UBA DX Contest, SSB Winter Field Day	28	29 QRP Fox Hunt Phone Fray UKEICC 80m Contest	30 ROC City Net 8:00pm 3.826 MHz CWops Mini-CWT Test	31 ARES Net 146.61 MHz 7pm		

NEWS FROM AREA CLUBS

MONROE COUNTY ARES / RACES News

The Monroe County Amateur Radio Emergency Service, Inc. holds its meetings on the fourth Thursday of each month. Anyone interested, members and non-members, are welcome to attend.

The next ARES Meeting will be held on: **Thursday, January 24, 2019, at 6:00 PM.**

Meetings are held at the **Greater Rochester Chapter of the American Red Cross HQ, 50 Prince Street, Rochester, NY 14607.** (Located behind the Rochester Auditorium Theatre, 885 Main St. E.)

ARES NET: Monroe County ARES/RACES meets on the air every Thursday of the month at 7:00 pm, on the 146.61 MHz (-) 110.9 Hz PL repeater. The only exception to that are nights when we hold our regular meeting, generally on the 4th Thursday of the month.

WEB: www.monroecountymcomm.org

Severe Weather Alerts:

Winter brings severe weather in the form of heavy snow and strong winds. If you experience severe weather, especially when accompanied by damage to property in your area, listen to your local ARES/RACES repeaters for information. While official ARES/RACES activation could be a possibility, it is more important that we open a spontaneous net simply to share information about weather conditions in your immediate area. Don't wait for someone else to do it. Pick up the microphone and start a net. Have each check-in station give you a situational awareness report and emergency power report. If you don't have a copy of the directed net protocol, you can find one at the WEB address listed above. (Activities/ARES Net/ Net Script/ Downloads)

NBEMS: Want to learn about Narrow Band Emergency Messaging System (NBEMS)? It's the latest and easiest way to "Go Digital!" Bring your laptop computer and 2-M handheld transceiver. We will conduct an NBEMS clinic after every meeting through June 2019.

ROCHESTER DX ASSOCIATION, RDXA

January Presentation

Tuesday 15 January, 2018 at the EOC, 7:30pm

1190 Scottsville Rd # 200, Rochester, NY 14624 (second floor)

Dave Farnsworth, WJ2O will be giving a presentation on worldwide DXing.

He'll be going to Kigali, Rwanda (9X) several days after his visit.

Following is Dave's "resume" - a MUST attend presentation!!



Dave Farnsworth—WJ2O

Dave has been a licensed ham since 1970 has enjoyed a passion for DXing and CW Contesting. An experienced DXpeditioner he has traveled to and operated from over 65 different DXCC entities. His rare trips include Navassa (KP1) in 1993, Easter Island (XR0Y) in 1995, Clipperton (TX5K) in 2013 and well as Heard Island (KK6EK) in 2016.

His complete list of operations are: 3DA0 (twice), 6W, 6Y5, 8P, 9H, 9Y, C6A (twice), CE, CE0A, DL, EI, ES, F, FG, FJ, FM, FO8, FS, GI, GJ, GU, HB9, HB0, HK, HK0, HP, I, J3, J6, J7, KH6, KP1, KP2, KP4, LU, LX, LY, OE, OH, ON, OX, P4, PA, PJ2, PJ4, PJ7, PZ, SM, SP, TF, V2, V3, V4, VE (Zones 1 & 2), VK0H, VP2E (twice), VP2M, VP5 (6 times), VP9, YL, YN, ZF, ZP and ZS. He maintains details of each trip at <http://www.wj2o.com>. Since the age of 22, Dave has been a small business entrepreneur building a number of different enterprises. He currently operates a software and database development firm. He and his wife raised two daughters and enjoy four grandchildren.



ROCHESTER RADIO REPEATER ASSOCIATION

The Rochester Radio Repeater Association, RRRRA invites you to attend its January 18th 2019 meeting. Meetings are held on the 3rd Friday of the month in the Pittsford Town Hall Basement starting at 7:30 pm. We were planning on having some one from RVHFG speak about the up coming VHF contest. They can't make it so we will talk about contesting and the changes made to our web page. Also If you got a new goody for Christmas bring it to show the rest of us.

Starting in January the Board decided to give away unused door prizes from our past hamfests. One prize will be given away to someone attending each month until they are all gone. February's prize is going to be something special, a MFJ 24 hour wall clock so plan to attend.

The RRRRA current officers are Bob Odell, N2BZX President, Bob Shewell, N2HJD Vice President / Technical Chairman, ED Wilkonski, K1EM Secretary, and Bob Smith, NS2B Treasurer / Membership Chairman. RRRRA also accepts donations to the club. If you are not currently a member and want to support RRRRA, you can join at our monthly meeting or on our web site www.k2rra.org

ROCHESTER VHF GROUP

The Rochester VHF Group sponsors an informal On-Air Net every Monday at 2100 local time on 144.260 MHz USB and a 6 Meter Net every Thursday at 2100 local on 50.200 MHz USB.

More club information can be found by visiting www.rvhfg.org or just calling in any Monday or Thursday night. All are welcome to check in to these nets.

XRX AMATEUR RADIO CLUB

The XRX Amateur Radio Club will have their next meeting at 6PM on Thursday January 10th at the Webster Recreation Center. Look for details on our website <http://xarc.us>

AMATEUR RADIO ASSOCIATION OF THE SOUTHERN TIER, ARAST

ARAST meets the third Thursday of every month at the Town and Country Fire Department on Gardner Rd in Horseheads New York. Chemung County ARES (CCARES) meets the first Tuesday of the month except February at Harris Hill. See www.ccares.info for details. CCARES covers the entire area in Chemung, Schuyler and Steuben counties and all are welcome.

There will be no CCARES meeting in January due to the holiday being the first Tuesday. They will meet this month for the annual banquet at the Elmira Heights American Legion.

Several of our members have decided to get together for the winter field days happening January 26-27, 2019 at cabin 5 on Harris Hill. More information about this event can be found in December's QST. Should you hear them give a shout out to them.

Communicators are needed to help out with the 2019 Wineglass Marathon (date to be announced) . If you would like to help out, contact the emergency coordinator: emergencycoordinator@stny.rr.com .

2019 Hamfest will be the last Saturday of September 2019. Stay tuned for details

Our website is still under construction. It is anticipated that construction will continue until after the Hamfest. Until that is finished check us out at www.arast.info .

Don't forget to check out our repeaters when you visit the area. The N3AQ 147.36(+) and the 146.70(-) are the principal 2 meter repeaters. Also Echolink is available using the call sign KA2BED-R. Check it out. A full list of available repeaters that can be heard in the twin tiers area surrounding Chemung County can be found at www.arst.info/arast_website/public/repeaters.php .

COMMUNITY AMATEUR RADIO CLUB, CARC

If you are interested in being a part of this forward thinking and active club, visit us at a meeting or join us on one of our weekly nets. We meet at the Hoag Library (134 S. Main St. Albion, NY) on the first Saturday of each month at 7PM. Each meeting has a brief training/refresher period with upcoming topics including: net protocol, repeater set-up/maintenance, and digital signaling. The club holds a net every Sunday evening at 8pm (winter) and 9PM (summer) - 0100 UTC Monday - on 147.585 simplex, and we host the Thursday Night Social Net, Thursday at 8:30PM on 147.285+. We'd love to hear you check-in! Take a look at the club website for more info: www.k2srv.org

DIGITAL COMMUNICATIONS ASSOCIATION OF PERINTON, DCAP

DCAP members continue to experiment with leading edge digital communications modes. We were formed in 1994 to foster the development of local and regional packet radio networks using AX25 and TCP/IP. Today we have members using the club sponsored DSTAR repeater (KB2VZS on 444.8MHz), several personal and public [DSTAR hotspots](#) (using the dvprtr board), Yaesu fusion systems on non-club repeaters and DMR. The last mode is being enjoyed locally through a [DV-Mega-Raspberry PI](#) combination. DCAP meets for breakfast at 7AM nearly every Saturday morning at [Rikki's Family Restaurant](#) in Fairport and everyone is welcome to join us. Talk in is on the KB2VZS analog repeater on 146.715 MHz with a PL of 110.9 Hz.

KEUKA LAKE AMATEUR RADIO ASSOCIATION, KLARA

The purpose of our association is to:

- promote interest in Amateur Radio communication and advancement of the radio art.
- conduct programs, training, and exercises that enhance the skills of the members, and educate the community.
- develop ties with other services and establish relationships with community organizations.
- provide emergency communication services.
- promote enjoyable Amateur Radio related events.

The association was incorporated in 1991 and has been a vibrant part of the community ever since. We have a very active VE testing program. We also participate in numerous public events (the Wineglass Marathon and the Wine Country Classic Boat Regatta are two of the largest).

We operate a system of three repeaters (which are linked), providing a large area footprint for two meter FM amateur use. Please see our website for details. (www.klara.us)

Our meetings are held on the second Wednesday of each month at the Civil Defense and Fire Training Center on Route 54 in Bath, NY.

SQUAW ISLAND AMATEUR RADIO CLUB, SIARC

The Squaw Island Amateur Radio Club (SIARC) meets every second Wednesday of the month at 7:30PM at the Ontario County Safety Training Facility, 2914 County Road 48, Town of Hopewell. We have License Exam Testing every other month which begins at 6:30PM. The next meeting will be Wednesday, January 9th. There will be license Exams this month. The January meeting will be our fleamarket. Bring any equipment or parts you want to sell or trade. 73's Steve Benton VP SIARC WB2VMR

WESTSIDE AMATEUR RADIO CLUB

The mission of the Westside Amateur Radio Club is to provide emergency communications services to the community, to assist other civic organizations, to promote the technical craft of amateur radio through class training and testing, to mentor new members, and enhance fellowship among radio amateurs.

The Westside Amateur Radio Club meets on the first Tuesday of the month, 7PM, at the Prudential Kares Realty, 3313 Chili Ave., Rochester, NY 14624. Park / enter on the left side of the building and meet in the lobby.

The talk in repeater for all meetings is the WR2AHL Repeater 146.760MHz - 110.9. AllStar, Echolink, and web streaming connections are available. Website: <http://WestsideAmateurRadio.club>

INTERLOCK ROCHESTER - K2HAX - ROCHESTER'S HACKERSPACE

Interlock Rochester is open most every Tuesday night at 7pm. We're in the Hungerford Building (1115 East Main Street, Rochester NY), just north of Village Gate. Come to Door #7 (to the left of Comics Etc) and buzz Suite 200. Want to know more? Visit our website at <http://www.interlockroc.org/>, contact us at info@interlockroc.org, or find us in #interlock on Freenode IRC.

ROCHESTER MAKERSPACE

The Rochester Makerspace is located at the rear of 850 St. Paul Street in almost 4,000 square feet of workspace. We are a volunteer-run 501c(3) nonprofit organization and our mission is to encourage learning, creativity and collaboration. We do that by providing low-cost and free access to sophisticated tools, offering a wide variety of classes, and by providing opportunities for "makers," artists and crafts persons of all kinds to meet and learn from each other.

Drop in to explore, learn and make at our weekly open house:
Every Thursday Night, 6 to 10 PM – Weekly Community Night & Open House
Every Saturday, 11 AM to 3 PM – Weekly Community & Open House
Park in the lot at Scrantom St. and Conkey Ave. and follow the signs.

A ham bench is set up with a 2 meter FM radio and a laptop with WebSDR. Waiting for nicer weather to install outside antennas for the Heathkit HW101

transceiver and Kenwood all mode 2 meter transceiver. Donations of ham equipment accepted.

For more information visit <https://www.makerspacerochester.org/hamradio>

GENESEE VALLEY AMATEUR RADIO ASSOCIATION

Email n3dsp@lafireline.net for details.

ASTRONOMY SECTION ROCHESTER ACADEMY OF SCIENCE

For more information visit <http://www.rochesterastronomy.org/>

THE AMATEUR'S CODE

Originally written by Paul M. Segal, W9EEA (1928)

THE RADIO AMATEUR IS:

CONSIDERATE	Never knowingly operating in such a way as to lessen the pleasure of others.
LOYAL	Offering loyalty, encouragement and support to other amateurs, local club, and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.
PROGRESSIVE	With knowledge abreast of science, a well built and efficient station and operation beyond reproach.
FRIENDLY	With slow and patient operation when requested, friendly advice and counsel to the beginner, kindly assistance, co-operation and consideration for the interests of others. These are the hallmarks of the amateur spirit.
BALANCED	Radio is an avocation, never interfering with duties owed to family, job, school or community.
PATRIOTIC	With station and skill always ready for service to country and community.

RARA MARKETPLACE

Your commercial ad could be here! The RARA RAG can help spread the word on your business at very reasonable rates.
Contact us for details at editor@rochesterham.org.

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Ad size and cost—**per year**:

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Quarter Page	\$300
Half Page	\$600

Your advertisement will be seen by amateurs in Rochester, Monroe County, New York State, the United States and even the rest of the world. RAG circulation is approx. 4,500.

Pass it forward
by donating your radio
or accessory to RARA.



Your item may be sold at future RARA events with proceeds to benefit RARA members.

You will get a tax-deductible receipt and the satisfaction that comes with doing good for others.

Call 585-210-8910 or email
Secretary@RochesterHam.org.

RARA is an IRS 501.c.3 non-profit

Consult with your tax advisor.

RARA OFFICERS, DIRECTORS AND COORDINATORS

OFFICERS

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ACTIVITY COORDINATORS

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Membership Secretary	Tim Barrett, K9VB	tim.k9vb@gmail.com	Webmaster	Scott Theis, W2LW	webmaster@rochesterham.org

FEBRUARY RAG DEADLINE

JANUARY 15, 2018



**RARA meets at 7PM on the
first **Wednesday** of each month. Join
us at:**

Seneca Waterways Council, BSA Headquarters
2320 Brighton Henrietta Town Line Rd
Rochester, New York 14623

Get Directions

Rochester Area Repeater Listing

THE RARA RAG

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P.O. Box 93333, Rochester, NY, 14692-8333
Hotline – (585) 210- 8910
Website – <http://www.rochesterham.org>

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Mark Minarich: mminaric@rochester.rr.com

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Digital Communications Association of Perinton (DCAP)
Gary Skuse, KA1NJL: ka1njl@arri.net

Drumlins Amateur Radio Club Ltd. (DARC)
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Fisherman's Net Amateur Radio Club
Jim Sutton, N2OPS: jim@otrym.org

Genesee Valley Amateur Radio Assn.
Bill Boyd, N3DSP: N3DSP@lafireline.net

Keuka Lake Amateur Radio Association (KLARA)
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Monroe County ARES
Jim DiTucci, N2IXD: n2ixd@arri.net

Orleans County Amateur Radio Club (OCARC)
Terry Cook, K2EYS: k2eys@ocarc.us

Rochester Amateur Radio Association (RARA)
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ROC City Net
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Rochester Makerspace
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Rochester Radio Repeater Association (RRRA)
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Rochester VHF Group (RVHFG)
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Squaw Island Amateur Radio Club (SIARC)
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Westside Amateur Radio Club
Justin Grigg, KC2EQU: communications@westsideamateurradio.club

XRX Amateur Radio Club
Brian Donovan, K2AS: k2as@outlook.com

AFTER HOURS AT THE MUSEUM - 2019

The Antique Wireless Museum is pleased to announce the 2019 series of presentations at the Museum.

AFTER HOURS AT THE MUSEUM is a series of exciting, entertaining and informative bimonthly presentations at the Antique Wireless Museum in Bloomfield, New York. Led by experts from the Museum, academia, and industries throughout the region, the series will cover a broad spectrum of experiences and topics from an old time live radio show to the latest developments in communications, and from the likes of Irish music to the Finger Lakes wine industry.

AFTER HOURS AT THE MUSEUM is designed to be fun, interesting and engaging. The presentations will be held at the Museum on Wednesday evenings from 7:30 – 9:00 pm. Light refreshments will be served as part of a fun evening. In addition to the presentations, admission tickets will allow visitors to enjoy and explore the newly expanded Antique Wireless Museum – a unique ‘gem’ of the Finger Lakes.

The schedule of presentations for 2019 is:

January 16	“Civil War Balloon and Observation Post” – by Chris Lynn, Genesee Country Village Museum
March 20	“Live Old Time Radio Show and Music” – by the West Bloomfield Congregational Church Bloomfield Home Companion Players
May 15	“A Night of Irish Music” – by Almost Irish, a popular local Irish band
July 17	“Finger Lakes Wine Industry and a Wine Tasting” - by Will Ouweleen, Eagle Crest Vineyards
September 18	“History of WHAM Radio” – by Ed Gable, AWA Curator Emeritus
November 20	“Tourism in the Finger Lakes” – by Valery Koblauch, President, and CEO, Finger Lakes Visitor Connection

Admission for adults is \$10 or \$5 for members of the Museum. **Seating is limited** so don’t miss out. Purchase your advance sale tickets at the Museum during normal Museum hours of Tuesdays 10 am to 3 pm and Saturdays 1 pm to 5 pm. Remaining tickets will be sold the night of the presentation at the door.

The Antique Wireless Museum is located at 6925 Route 5 in Bloomfield, New York 14469 near the corner of Route 5 and Route 444.

Founded in 1952, the Museum is sponsored by Antique Wireless Association an educational, non-profit corporation chartered by the Department of Education of the State of New York.